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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,216	11/25/2003	Toshiya Yuasa	03560.003402	4985

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EXAMINER

CORDRAY, DENNIS R

ART UNIT	PAPER NUMBER
1731	

MAIL DATE	DELIVERY MODE
06/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

<b>Application No.</b> 10/720,216	<b>Applicant(s)</b> YUASA, TOSHIYA	
<b>Examiner</b> Dennis Cordray	<b>Art Unit</b> 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 27 March 2007.
- 2a)  This action is **FINAL**.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 3-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) 6-7 is/are allowed.
- 6)  Claim(s) 3-5 and 8-13 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_

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## DETAILED ACTION

### *Response to Arguments*

Applicant's amendments, filed 3/27/2007, have overcome the previously made rejections. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground of rejection is made as detailed below.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 and 8-13 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Struck et al.

Struck et al discloses a dispersion comprising a cationic copolymer dispersant that is added to a papermaking furnish as part of a retention aid in a

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papermaking process (Abstract; p 1, par 2). The cationic copolymer dispersant comprises a cationic vinyl monomer (m3) (p 1, par 11). Preferred monomers are (meth)acryloyl-oxyethyl-trimethylammonium chloride (p 2, par 27 to p 3, par 28), which is described by formula (1) of the instant invention. The copolymer also comprises a second monomer (m4), preferred examples of which are methoxypolyethylene glycol methacrylate, poly(ethylene glycol) methyl ether acrylate, di(ethylene glycol) ethyl ether (meth)acrylate, ethylene glycol methyl ether (meth)acrylate, which are described by formula (2) of the instant invention (p 1, par 11; p 3, par 29). The copolymer comprises 80 to 99.9 mole percent of monomer m3 and 0.1 to 20% of monomer m4 (p 3, pars 28-29). The weight average molecular weight of the copolymer is from 20,000 to 5,000,000 g/mole (p 3, par 30). The disclosed copolymer significantly overlaps and thus anticipates the claimed copolymer.

Polymeric additives to papermaking can simultaneously serve multiple purposes, thus the polymer of Struck et al is capable of serving as a dispersant as well as an engine sizing agent.

Struck et al does not explicitly disclose a paper comprising the polymer. Struck et al does disclose a process for making paper wherein the copolymer is added to a papermaking suspension that contains fibers and fillers (pp 3-4, par 38). The paper made by the process will comprise the polymer. Applicant admits in the instant Disclosure that a plain paper is a recording medium (p 20, lines 1-2). It would have been obvious to one of ordinary skill in the art to make a

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paper by a method comprising adding the copolymer of Struck et al to the fibrous suspension and to use the paper as a recording paper.

Claims 3 and 5 are product-by-process claims, reciting a paper product made by applying a sizing agent to the surface thereof. Claims 4 and 8-13 depend from Claims 3 or 5, therefore carry the same product –by-process limitations. The product of Struck et al appears to be the same as or similar to the claimed product, a paper comprising the claimed polymeric sizing agent, although produced by a different process. The burden therefore shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). “In the event any differences can be shown for the product of the product-by-process claims 3-5 and 8-13 as opposed to the product taught by the reference Struck et al, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results: see also In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)”

***Allowable Subject Matter***

Claims 6 and 7 are allowable over the cited prior art.

The following is a statement of reasons for the indication of allowable subject matter: the closest cited prior art (Struck et al) teach a process wherein the claimed copolymers are added to a papermaking furnish as a retention aid or flocculant. Addition of the copolymers to a base paper would not meet the disclosed needs and therefore is neither disclosed by or obvious over Struck et

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al. Other prior art, Kawai et al disclose a recording sheet with an ink absorbing layer comprising a polymer having cationic and hydrophilic monomers but also having a crosslinking monomer as part of the polymer.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
DRC

  
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